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Dutch Labeling and Ingredients Requirements Report

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This report has been prepared by TNO Nutrition and Food Research in Zeist, the Netherlands, at the request of the Office of Agricultural Affairs of the USDA/Foreign Agricultural Service in The Hague, The Netherlands. While every possible precaution has been taken in the preparation of this report, information provided may no longer be complete as some import requirements are subject to frequent changes. It is highly recommended that U.S. exporters ensure that all necessary customs clearance requirements have been verified with local authorities through their foreign importer before the sale conditions are finalized. U.S. exporter should keep in mind that **FINAL IMPORT APPROVAL OF ANY PRODUCT IS ALWAYS SUBJECT TO THE RULES AND REGULATIONS AS INTERPRETED BY THE COUNTRY OF IMPORT AT THE TIME OF PRODUCT ENTRY.**

A. Food Laws

National Basic Legislation

In the Netherlands, there is not one single and specific food law. The regulatory framework for foodstuffs and non-food is the *Warenwet* (Commodities Act) which forms the backbone of the Dutch system for food commodities legislation. The *Warenwet* supplies general guidelines and requirements concerning foods and other commodities. Basic objectives of this law are: (1) health protection, (2) guarantee of product safety, (3) provision of adequate and correct information to the consumer and discouragement of misleading information, and (4) promotion of fair trade.

Besides the *Warenwet*, which concerns most foods, general aspects of some *primary foods* are regulated in two other laws: the *Landbouwkwaliteitswet* (Agricultural Quality Act), which concerns primary agricultural products, and the *Vleeskeuringswet* (Meat Inspection Act), which concerns (unprocessed) meat.

Specific Standards

All the three Acts mentioned above are basic laws and can be characterized as enabling legislation. These laws provide a basis for setting standards but do not specify concrete standards themselves. Standards concerning specific products or subjects (e.g. labeling and hygienic production) are the domain of individual implementing decrees (Royal decrees), based on the *Warenwet* (Commodities Act) or one of the other Acts mentioned above.

Ministries Involved

In general, implementing decrees concerning foods are realized in collaboration between the ministry of Public Health, Welfare and Sports and the ministry of Agriculture, Nature Management and Fisheries. Decrees are signed by the Queen and/or the responsible minister.

Regulations from Dutch Commodity Boards (Productschappen)

In specific cases, decrees are not drafted by ministries but by a specific Commodity Board. Commodity Boards are official organizations for several product sectors, founded by law, which have the legal possibility to propose and enforce decrees on the basis of relevant enabling legislation.

Impact of EU Harmonization

During the 1970s, the European Commission (EC) started a process of harmonization of food legislation of the member countries. This process was accelerated in 1985, when the EC set itself the task of completing a fully united internal market within its territory of 15 member states, which was realized on January 1, 1993. In the meantime, important horizontal regulations on foods came into force on the European Union level concerning, for example, food additives, labeling and hygiene. Moreover, some product regulations became available.

Existing legislation on the level of individual member states was harmonized for these subjects via implementation of the relevant EC directive or regulation. As a consequence, most of the Dutch Royal decrees are derived from these directives and regulations. For these subjects, legislation is the same for all member countries.

In January 2002, EC regulation 178/2002 “laying down the general principles and requirements of food law, establishing the European Food safety Authority and laying down procedures in matters of food safety” was published. This regulation, which somewhat can be considered as the EC Food law, provides general food safety requirements and feed safety requirements. In this connection, responsibilities for (the monitoring of)

food quality and safety are defined. Further, it is prescribed that the traceability of food, feed, food-producing animals and any other substance to be incorporated into a food or feed shall be established at all stages of production, processing and distribution. *With respect to food and feed imported into the Community for placing on the market within the Community* it is required (art. 11), that they shall comply with the relevant requirements of food law or conditions recognized by the Community to be at least equivalent thereto or, where a specific agreement exists between the Community and the exporting country, with requirements contained therein.

This article and some other relevant articles shall apply from 1 January 2005.

As a consequence of this regulation, existing food law principles and procedures on member state level may be adapted more or less, as far as necessary, by 1 January 2007 at the latest.

In the Dutch situation this probably will influence current Dutch general food legislation only on a rather limited scale.

Control System

In general, there is no registration system for foods destined for retail and consumers. However, it is the producer's responsibility that the foods meet legal requirements and are in conformity with the relevant standards. A network of five Food Inspection Services (Keuringsdiensten van Waren) (Appendix 2) take samples from the shops for analytical, microbiological and administrative control (labeling!). They also conduct inspections in factories. In case of deviations, measures like a charge or seizure can follow.

B. Labeling Requirements

B1. General Labeling Aspects

Subject of EC Harmonization

Since 1979, labeling of packaged foods for sale to the consumer is subject to EC harmonization. In that year, a basic directive on food labeling was published and subsequently implemented in the legislation of individual member states. The relevant directive (79/112/EEC) was followed by several directives with amendments. As a rule, these directives allow to the member countries some time after publication for realizing implementation. The most recent amendment (directive 97/4/EC), concerns QUID (quantitative ingredient labeling). This new amendment prescribes quantitative declaration of major ingredients from 14 February 2000.

A new, consolidated single text version of all EC labeling legislation published so far has been published in March, 2000 (directive 2000/13/EC). Due to this harmonization, the Dutch legislation concerning food labeling as mentioned below is, except for minor details, basically the same as in all other member countries. In the Netherlands, these requirements have been laid down in the "Warenwetbesluit etikettering van levensmiddelen" (Royal decree concerning food labeling).

Information to be mentioned on the label

The labeling information must be easily visible, clearly legible and indelible. The information required is the following:

a. Name/designation of the Product

For some products, the name to be used is prescribed by law. If this is not the case, a customary name may be used. If this is not available, a description should be used which makes it possible to the consumer to understand the nature of the food.

For frozen products which should be kept frozen the word “diepvries” must be added to the name.

b. List of Ingredients (In Dutch: Ingrediënten:).

All ingredients should be listed, in descending order of weight. In general, ingredients should be listed under their specific names. However, for some categories of ingredients (natural ingredients or foodstuffs) generic names may be used (Appendix 3).

Additives as mentioned in Appendix 5 must be listed by their customary names or by their E-number (EC registration number); this has to be preceded by the name of the additive category (Appendix 4).

Sometimes an additive can be used in more than one function. In that case the manufacturer of the food in question should mention on the label the category that corresponds to the application.

Additives carried over from ingredients must be declared only if they have an effect in the final product.

Declaration of processing aids, solvents, etc., used in the production process, is not required. In case special emphasis is placed on the presence or the high or low content of an ingredient, the percentage must be stated in the list of ingredients.

c. Quantitative Ingredient Declaration (Quid)

Quantitative ingredient declaration for foodstuffs is required, where the ingredient or category of ingredients concerned appears in the name under which the foodstuff is sold or is usually associated with that name by the consumer.

Examples: “Ham and Mushroom Pizza.” The ingredients ham and mushroom require quantification.
“Chilli Con Carne.” The consumer associates the product with a certain content of minced beef; consequently the content of this ingredient must be mentioned on the label.

QUID (Quantitative ingredient declaration) shall appear either in or immediately next to the product name or in the list of ingredients in connection with the ingredient or category of ingredients (for instance vegetables, fruits) in question.

There are, however, exemptions on the general rule. In the case an ingredient is mentioned in the name, but the level is not relevant for the consumer and does not influence his purchasing decision, QUID is not required (example: content of soy in soy sauce).

Further, ingredients which are added in small quantities for taste purposes only are also excluded from QUID obligation (example: garlic in “garlic bread”).

d. Net Quantity in Units of the Metric System (kilogram (kg) or g (gram), or liter (l), centiliter (cl) or

milliliter (ml). It is emphasized that the mentioned net quantity is to be considered as a minimum, applicable to each individual packaging. It is, however, possible, to employ a system of declaration of the average net quantity. In this case, net content must be labeled in combination with the character “e,” for example: e 500 g or 500 g e.

The e-system may only be used on the basis of specific requirements concerning the acceptable variations and of the certification of a detailed control system. This system must be managed by the producer/packer in the Netherlands or by the importer and will be checked by the Dutch authorities. Detailed information about the e-system can be supplied on request by NMI-Certin B.V. (see appendix 1)

For products, with the exception of spices and herbs, which are packed and sold in quantities less than 5 g or 5 ml, the net weight has not to be mentioned on the label.

- e. Date of Minimum Shelf-life** or, for foods that (from a microbiological point of view) are highly perishable, the “use by” date.

If the date is influenced by the method of storage, the prescribed way of storage has to be mentioned on the label.

The statements to be used are the following:

1. *Minimum durability:*

Tenminste houdbaar tot:	Day, month, year (for a shelf-life of 0 - 3 months after the date of packaging)
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Tenminste houdbaar tot einde:	Month, year (for a shelf-life between 3 and 18 months)
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Tenminste houdbaar tot einde:	Year (for a shelf-life longer than 18 months)
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2. *Perishable foods (“use by date”):*

Te gebruiken tot:	Day, month (storage conditions must be mentioned).
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- f. Percentage of Alcohol**, if the level is higher than 1.2% v/v.

g. Batch Number

Batch numbers may be mentioned in solvable codes. If the statement of shelf-life includes day, this may be considered as the batch code.

h. Instruction for Storage And/or Use

This instruction must be supplied if there is a risk for incorrect storage or use. It can be omitted if storage and/or use is a matter of course.

i. Name and Address of Manufacturer/Exporter

The name and address of the US exporter/manufacturer may be substituted by the (trading) name and address of the EU importer or seller.

j. Place of Origin

This has to be mentioned, for example as “Geproduceerd in de USA.”

k. Irradiated

If the product or product ingredient has been irradiated, this must be stated by mentioning the word(s) “doorstraald” or “door straling behandeld” or “met ioniserende straling behandeld.” Irradiation is only tolerated for a very limited range of products.

l. Frozen

If the product is frozen and should be stored in a freezer, the word “Diepvries” should be mentioned near the product name/designation. Additionally, it must be mentioned that thawed products may not be frozen again: “na ontdooiing niet opnieuw invriezen.”

m. Artificial/intensive Sweeteners

The use of artificial sweeteners must be mentioned near the product name/designation by the words “met zoetstoffen.” If a combination of sugars and sweeteners has been added, the words “met suikers and zoetstoffen” must be mentioned here.

n. Packaged in a Protective Atmosphere

For foodstuffs whose durability has been extended by means of packaging gases (in conformity with EC council directive 89/107), the words “verpakt onder beschermende atmosfeer” must be included on the label.

o. GMO Derived Products

In case the product contains an ingredient derived from a GMO, this must be mentioned in the list of ingredients. This is only required if DNA from the GMO or modified protein is detectable in the ingredient. Only GMO soy and corn products are allowed as yet. As required by EC regulation 1139/98, the statement in the list of ingredients must be (in the case of soy protein): “*geproduceerd met genetisch gemodificeerde soja*”. In this connection, a threshold in terms of a single percentage is defined: for each ingredient, the unintended presence of maximal 1% GMO material is accepted as a tolerance level. Producers shall however be able to supply evidence that they have taken appropriate steps to avoid using GMO’s (or produce thereof). Since April 2000, GMO declaration on the label is also required for flavors and additives, produced from/by a GMO organism, as far as the properties of the flavor or additive are not comparable to the flavor or additive produced in a traditional way (for instance due to the presence of DNA from the GMO or of modified protein). As required by EC regulation 50/2000, the statement in the list of ingredients must be :..... (flavor or additive), “*geproduceerd met genetisch gemodificeerde*” (The GMO organism in question). *Non-GMO statement.* This statement (“ bereid zonder gentechniek”) may only be mentioned under *very strict conditions* concerning the production.

Notes

C The following information must be mentioned in the same field of vision:

- Product name
- Net quantity
- Shelf-life
- Alcohol content (if alcohol is present at a level higher than 1.2% v/v)

C The information required must be well understandable for the consumer. To prevent any discussions, it is recommended to use exclusively the Dutch language for these items.
It is allowed to mention information in other languages (e.g. English) *additionally*.

- C *Stick-on labels* in addition to the standard US label can only be used as a temporary solution. Also in this case, the Dutch stick-on label shall meet all Dutch labeling requirements.
- C The labeling requirements mentioned refer to products destined for the consumer (retail stage). In case the packaged foods are traded in an earlier stage, and also if the goods are destined for institutions such as hospitals, old people's homes and restaurants, the external packaging must mention at least: designation/name, batch identification code, name and address of the producer/ packer or seller and minimum shelf-life. All other labeling information referred to above must be mentioned in accompanying documents. For products destined for a production or packing plant, only mentioning of the designation (name) and the batch identification number is required. Other information can be supplied in accompanying documents.
- C Claims. Information and claims may not be misleading. Medical claims are forbidden for foods. Consultancy about labeling and claims can be provided by several Dutch institutions and bureaus, for instance by the TNO organization (address: Appendix I).

B2. Nutritional Labeling

Legal basis

Nutritional labeling is regulated on a EC level (EC Directive 90/496/EEG). Nutritional labeling is voluntary unless a nutritional claim is made, on the basis of which nutritional labeling becomes compulsory and must be provided in a prescribed format. This information and the format differs from those of the standard US nutritional facts panel, which cannot be used for Europe/the Netherlands.

Labels

If nutritional figures are provided, the following labeling formats are compulsory:

(Option 1):

energetische waarde	(kJ/100g)	(energy)
eiwitten	(g/100 g)	(proteins)
koolhydraten	(g/100 g)	(carbohydrates)
vetten	(g/100 g)	(fat)

(Option 2):

energetische waarde	(kJ/100g)	(energy)
eiwitten	(g/100 g)	(proteins)
koolhydraten	(g/100 g)	(carbohydrates)
suikers	(g/100 g)	(sugars)
vetten	(g/100 g)	(fats)
verzadigde vetzuren	(g/100 g)	(saturated fatty acids)
voedingsvezel	(g/100 g)	(dietary fiber)
natrium	(g/100 g)	(sodium)

Extensions

The following extensions may be used for options 1 and 2:

zetmeel	(g/100 g)	(starch)*
polyolen	(g/100 g)	(polyols)*
enkelvoudig onverzadigde vetzuren	(g/100 g)	(mono-unsaturated fatty acids)**
meervoudig onverzadigde vetzuren	(g/100 g)	(poly-unsaturated fatty acids)**
cholesterol	(mg/100 g)	(cholesterol)**
vitamins***		
minerals***		

* labeled as follows:

koolhydraten	(g/100 g)	(carbohydrates)
waarvan:		(of which:)
suikers	(g/100 g)	(sugars)
zetmeel	(g/100 g)	(starch)
polyolen	(g/100g)	(polyols)

** labeled as follows:

vetten	(g/100g)	(fats)
waarvan:		(of which:)
verzadigd vet	(g/100 g)	(saturated fat)
enkelvoudig onverzadigd vet	(g/100 g)	(monounsaturated fat)
meervoudig onverzadigd vet	(g/100 g)	(polyunsaturated fat)

***individual vitamins and minerals may only be listed here if, in general, 100 g of the product in question supplies at least 15% of the RDI (recommended daily intake).

Please note that some EC RDI values differ from the US values.

Nutritional Claims

Nutritional claims are only permitted for energy value, protein, carbohydrates/sugars, fat/fatty acids, dietary fiber, sodium and prescribed vitamins and minerals, and for substances belonging to or derived from the above nutrients. Concerning nutritional claims, there are no provisions on a EC level. However, in the Dutch regulation such provisions are formulated.

Dutch provisions are formulated concerning the following claims:

- S** Low energy value (less than 210 kJ/100g)
- S** Reduced energy level (at least 33% lower than that of comparable standard products)
- S** Low fat content (less than 5%; must be calculated on a dry matter basis for beverages, soup and milk)
- S** Reduced fat content (at least 33% lower than that of comparable products)
- S** High protein content (at least 20%; should be calculated on a dry matter basis for beverages, soup and milk)
- S** Raised protein content (at least 33% higher than that of comparable products)
- S** High level of polyunsaturated fatty acids (at least 60% of the fat, saturated fat not more than 25% of the fat, daily consumption corresponding with at least 5 g of fat)
- S** Raised level of polyunsaturated fatty acids (at least 30% and at most 60% of the fat and at least twice the

level of comparable products; the level of saturated fat does not exceed the level of polyunsaturated fat and daily consumption must correspond with at least 5 g of fat)

- S Low content of saturated fat (saturated fat not more than 25% of total fat, polyunsaturated fat at least 60% of total fat, daily consumption of the product must correspond with at least 5 g of fat)
- S “Sugar-free” or “without sugar” (no sugar present, comparable products may contain sugars)
- S Reduced sugar level (at least 33% less sugars than in comparable products)
- S No sugars added/unsweetened (no sugars, syrups or honey added)
- S High dietary fiber content (at least 10% on a dry matter basis for soups, milk products and beverages in the ready-for-use product.
- S Raised dietary fiber content (at least 33% higher than in comparable products)
- S Low sodium/salt (less than 40 mg sodium per 100 g or 100 ml)
- S Reduced sodium/salt (at least 33% less sodium than in comparable products)
- S No salt added (no sodium used during manufacturing)
- S Other claims concerning sodium: only to be used after special admission from the minister.
- S High level of a specific vitamin or mineral: normal daily consumption of the product in question should supply at least 20% of the (Dutch/EC) RDI

Food Enrichment

Since 1996, the addition of certain levels of some vitamins and minerals in food products is allowed in the Netherlands. Concerning this matter, US exporters must send the information concerning these products for notification to the ministry of Health, Welfare and Sports, P.O. Box 20350, 2500 EJ The Hague, The Netherlands (see Appendix 1).

Enrichment of foods with vitamins A and D, folic acid, selenium, copper, zinc, fluorine and amino acids is not allowed. Enrichment of foods with iodine is only allowed for a very limited group of foodstuffs, by adding enriched salt products.

C. Food Additive Regulations

Subject of EC Harmonization

Food additive legislation has rigorously been harmonized among EC member states.

A basic framework directive concerning additives was published in 1989 (Directive 89/107/EEC).

Concerning the conditions of use for individual additives, including maximum levels of use in particular foods, directives concerning three groups of additives have come into force:

Directive 94/35/EC on Sweeteners for use in foodstuffs sets conditions for the use of permitted bulk and intensive sweeteners: *sorbitol, mannitol, isomalt, maltitol, lactitol, xylitol, acesulfame K, aspartame, cyclamic acid and its salts, saccharine and its salts, thaumatococcoside and neohesperidine DC*.

Directive 94/36/EC on Colors establishes a list of permitted colors and conditions of use, including maximum levels of use in particular foods, a list of foods in which colors may not be used, and a list of colors permitted for certain uses only.

Directive 95/2/EC on Food Additives other than colors and sweeteners establishes a listing of generally permitted additives, conditionally permitted preservatives and antioxidants, anti-caking agents, emulsifiers, stabilizers, etc.

As yet, the use of the additive category flour treatment agents has not been harmonized. For this subject, special regulations on an E.C. level will be formulated in the future. As yet, the use of chemical bleaching agents like bromates and peroxides is not allowed.

Definition of Additives

The definition of *food additive* is different from the US definition. E.C. directive 89/107 mentions the following definition:

*(Art. 1.2). * 'Food additive' means any substance not normally consumed as a food in itself and not normally used as a characteristic ingredient of food whether or not it has nutritive value, the intentional addition of which to food for a technological purpose in the manufacture, processing, preparation, treatment, packaging, transport and storage of such food results, or may be reasonably expected to result, in it or its by-products becoming directly or indirectly a component of such foods.**

The directive does not apply to *processing aids*, the definition of which is as follows:

*(footnote to Art. 1.3.a). * 'Processing aid' means any substance not consumed as a food ingredient by itself, intentionally used in the processing of raw materials, foods or their ingredients, to fulfil a certain technological purpose during treatment or processing and which may result in the unintentional but technically unavoidable presence of residues of the substance or its derivatives in the final product, provided that these residues do not present any health risk and do not have any technological effect on the finished product.**

On an E.C. level as well as on a Dutch national level, there is no specific regulation for or listing of processing aids.

Dutch Legislation on Additives

The Dutch legislation on additives is in full conformity with the E.C. directives mentioned above.

Survey of Additives

Appendix 4 presents a list of categories of additives as mentioned in the E.C. basic directive and the Dutch basic decree on additives. Appendix 5 gives a survey of all additives mentioned in the regulation. Please note that not for all additives the category is mentioned in legislation. In the list of ingredients of a specific food product, however, a category listed in Appendix 2 has to be mentioned in connection with the name and/or E.C. number of the additive. Insofar as the function of an additive is not specified in the legislation, the usual function(s) of each individual additive on the basis of the practice in food industry is/are listed in appendix 5. For the sake of completeness, we emphasize that concerning each additive allowed applications and concentrations are regulated in detail. The use of many additives is very limited (sometimes in one application only).

D. Pesticides and Other Contaminants

Pesticides

Legislation concerning the admission of pesticides and their use and residue tolerances is, as yet, only partly

harmonized in the EU. In the Netherlands, this subject is not regulated by food legislation, but by a specific Act (the *Pesticide Act*).

On the basis of this Act, residue tolerances for agricultural and other food products are formulated for several product/pesticide combinations. The decrees based on this Act result, after compilation of the various Dutch and E.C. amendments published, in two positive lists, in which residue tolerances are mentioned for different foods/pesticides combinations. One of these lists is based on EU legislation, and the other one on Dutch legislation. It is important to realize that, in general, the Dutch residue tolerances are lower than those published by the Codex Alimentarius.

Each application of each pesticides formulation for each food product must be registered in the Netherlands, on the basis of a specific application procedure to be addressed to the *College Toelating van Bestrijdingsmiddelen* at Wageningen (address: Appendix 1).

Detailed information on approved pesticides and residue tolerances can be obtained from the ministry of Health, Welfare and Sports and from TNO Nutrition and Food Research (addresses: Appendix 1).

PCBs

Concerning PCBs (polychlorobiphenyls), residue tolerances have been laid down in a *Warenwet* decree: the *Warenwetregeling Verontreinigingen in levensmiddelen*.

The specific Dutch tolerances, mentioned in this decree, apply to fish, milk and milk products, eggs and egg products, and meat and meat products.

Nitrates

On the basis of EC legislation, the acceptable levels of nitrates in vegetables are restricted. Maximum levels are laid down for spinach, lettuce, beets and endive. Dependent on the sort and the harvest season, the current fixed accepted maximum level of nitrate vary between 2500 and 4500 mg nitrate (NO₃) per kg vegetable.

Heavy Metals

On the basis of an EC regulation, for several foods, concrete residue tolerances have been formulated concerning the level of lead, cadmium and mercury. These tolerances depend on the product/product category and vary for cadmium between 0.05 mg/kg (meat and fish meat) and 1 mg/kg (kidney), for lead between 0.02 mg/kg (milk and infant formulae) and 1.5 mg/kg (bivalve molluscs), and for mercury between 0.5 and 1.0 mg/kg (fish and fish products, depending on the sort).

Detailed information on the tolerances for specific products can be obtained from the ministry of Health, Welfare and Sports and from TNO Nutrition and Food Research (Appendix 1).

Concerning *canned foods*, based on packaging material legislation, there are norms for:

lead: canned milk and milk products max. 0.3 mg/kg, canned tomato products max. 1.5 mg/kg, other canned foods max. 0.5 mg/kg.

Tin: all canned food products max. 150 mg/kg.

Mycotoxins and Toxins from Bacteria

These shall not be present at dangerous levels. Again, residue tolerances are based on an EC regulation and refer to *aflatoxins* and *ochratoxin*.

a. Aflatoxins

Concrete MRLs (maximum residue tolerances) concerning aflatoxin B1 and the sum of the aflatoxins B1, B2, G1 and G2 are fixed for the following products:

- Peanuts, nuts, dried fruits and related products, cereals and buckwheat: Aflatoxin B1 max. 2 : g/kg, aflatoxins B1+B2+G1+G2 max. 4 : g/kg.
- Spices: *Capsicum* spp: chillies, chilli powder, cayenne, paprika; *Piper* spp: white and black pepper; nutmeg, ginger and turmeric: Aflatoxin B1 max. 5 : g/kg, aflatoxins B1+B2+G1+G2 max. 10 : g/kg.

A MRL concerning aflatoxin M1 is fixed for the following products:

- Milk, and products on milk basis: Aflatoxin M1 max. 0.05 : g/kg.

b. Ochratoxin A

A concrete MRL (maximum residue tolerance) concerning ochratoxin A is fixed for the following products:

- Raw cereal grains max. 5 : g/kg; products derived from cereals max. 3 : g/kg; dried vine fruit (currants, raisins and sultanas) max. 10 : g/kg.

In near future, MRLs are expected for the products coffee, wine, beer, cocoa and spices.

3-Monochloropropane-1,2-diol (3-MCPD).

This toxic compound may be formed during hydrolysis of proteins.

MRLs are fixed for the following products:

- hydrolysed vegetable protein: max 0.02 mg/kg
- soy sauce: max. 0.02 mg/kg

Radioactivity

Total radioactivity from cesium 134 + 137 shall not be higher than:

370 Bq/kg for milk and milk products, including baby and infant foods

600 Bq/kg for all other foods

Dioxin

By the end of 2001, an EC Regulation fixing MRLs for *dioxin* came into effect.

MRLs for dioxins are defined for meat and meat products, liver and liver products, fish and fish products, milk and milk products, hen eggs and derived products, oils and fats.

The MRLs for each of these groups are the following:

- meat and meat products: between 1 and 3 pg dioxin/g fat
- liver and liver products: 4 pg/g fat
- fish and fish products: 4 pg/g fresh product
- milk and milk products (butter fat included): 3 pg/g fat
- hen eggs and derived products: 3 pg/g fat

- animal fat: between 1 and 3 pg/g fat
- vegetable oil: 0.75 pg/g fat
- fish oil: 2 pg/g fat

In the context of this legislation, “dioxin” is defined as the sum of polychlorinated dibenzo-*para*-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs), expressed in World Health Organisation (WHO) toxic equivalents (TEQs), using the WHO-TEFs (toxic equivalence factors, 1997

Detailed information on the tolerances for specific products can be obtained from the ministry of Health, Welfare and Sports and from TNO Nutrition and Food Research (Appendix 1).

E. Other Regulations & Requirements

Registration Requirements

Registration of imported regular foods is not required in the Netherlands. However, composition and labeling must be in conformity with Dutch legislation. Samples of products are taken from the Dutch consumer market and checked by the Dutch Food Inspection Services. Only for *Novel foods* and *Enriched foods* (viz. ch B2.) registration or information/notification, respectively, is required.

Novel Foods Legislation

On May 16, 1997, E.C. regulation 258/97 concerning novel foods and novel food ingredients came into force. This regulation concerns introduction to the market within the community of novel foods and novel food ingredients.

In the sense of this regulation, novel foods and novel food ingredients are products that have not hitherto been used for human consumption to a significant degree within the community and that *also* fall under one of the following categories:

- foods and food ingredients containing or consisting of genetically modified organisms;
- foods and food ingredients produced from, but not containing, genetically modified organisms;
- food and food ingredients with a new or intentionally modified primary molecular structure;
- foods and food ingredients consisting of or isolated from micro-organisms, fungi or algae;
- foods and food ingredients consisting of or isolated from plants and food ingredients isolated from animals, except for foods and food ingredients obtained by traditional propagating or breeding practices and having a history of safe use;
- foods and food ingredients to which has been applied a production process not currently used, where that process gives rise to significant changes in the composition or structure of the foods or food ingredients which affect their nutritional value, metabolism or level of undesirable substances.

The person/firm responsible for introducing a novel food to the community market shall submit a request to the authorities of the member state in which the product is to be placed on the market for the first time (for the Netherlands: ministry of Health, Welfare and Sports). The request shall contain the information necessary to demonstrate that the product does not present a hazard to the consumer and does not mislead the consumer.

Foodstuffs for Particular Nutritional Use (PARNUTS)

Dutch legislation on foodstuffs for particular nutritional use is derived from E.C. directives.

A particular nutritional use must fulfil the particular nutritional requirements of certain categories of persons whose digestive processes or metabolism are disturbed; or of certain categories of persons who are in a special physiological condition and who are therefore able to obtain special benefit from controlled consumption of certain substances in foodstuffs; or of infants or young children in good health.

Foodstuffs complying with these directives may be labeled additionally with the term “diet” (not compulsory).

As yet, specific regulations/product standards are in force for:

- Infant formulae and follow-on formulae (*Warenwetregeling Zuigelingen-voeding*). This standard includes compositional requirements and labeling requirements
- Cereal-based foods and baby foods (*Warenwetregeling Babyvoeding*). This standard covers foodstuffs fulfilling the particular requirements of infants and young children in good health, which are intended for use by infants while they are being weaned, and by young children as a supplement to their diet and/or for their progressive adaptation to ordinary food
- Food intended for weight control diets (*Warenwetregeling Energiebeperkte diëten*). This decree lays down detailed compositional and labeling requirements for such products
- Dietary foods for special medical purposes.

Also, for this group of foodstuffs, no registration is required.

Food Supplements

As yet, legislation concerning food supplements, has not been harmonized in the EU. However, legislation is in preparation, for the time being restricted to the sub category vitamin/mineral supplements only. It is expected that the relevant guideline - which in July 2002 has not yet been published officially - will come into force in 2003.

It is expected that this guideline will change the current legal situation concerning food supplements. However, there will be foreseen in a period of transition.

At present, in The Netherlands, specific legislation exists for vitamin preparations and for herbal preparations only. Legislation for vitamin preparations (*Warenwetregeling vrijstelling kruidenpreparaten*) mentions maximum quantities of vitamin A in the form of retinol and of vitamin D per advised daily dose (max. 1200 microgram and max. 5 microgram respectively).

Herbal preparations should only contain herbs in quantities not harmful for health; the Decree on herbal preparations (*Warenwetbesluit kruidenpreparaten*) further contains a list of herbs which are not allowed in herbal preparations and food supplements at all.

For all other types of food supplements, only general requirements concerning food safety are applicable. The permitted ingredients are restricted to safe components which can be characterized as more or less usual food components. Due to the fact that it appears that a lot of ingredients, regularly being used in food supplement products in the USA, are not accepted in The Netherlands it is advisable to let them have reviewed before marketing in The Netherlands.

Packaging and Container Size Requirements

Generally, for solid products, there are no packaging size requirements. Net weight must be in conformity with

the label declaration (g or kg). An example of an exception is butter. This product must be packaged in one of the units 10, 15, 20, 25, 125, 250, 400, 500 and 1000 g. Very usual is 250 g net weight.

For liquid products some packaging requirements are applicable. Examples are:

- **Alcoholic beverages/spirits:** the range of allowed packaging size is 0.02, 0.03, 0.04, 0.05, 0.10, 0.20, 0.35, 0.50, 0.70, 1.00, 1.125, 1.50, 2.00, 2.50, 3.00, 4.50, 5.00 and 10.00 liters.

The most usual sizes are 0.50, 0.70 and 1.00 liter.

- **Standard beer (malt basis):** 0.25, 0.30, 0.33, 0.35, 0.45, 0.50, 0.75, 1.00, 2.00, 3.00, 4.00 and 5.00 liters.

The most common sizes are 0.30, 0.33 and 0.50 liter.

- **Milk and related products:** 0.125, 0.20, 0.25, 0.50, 0.75, 1.00, 1.50 and 2.00 liters.

For consumption milk, the most usual sizes are 1.00, 1.50 and 0.50 liter.

- **Soft drinks:** no specific requirements in the Netherlands. However, it is suggested to follow the E.C. list of sizes to be accepted in all member countries: 0.125, 0.20, 0.25, 0.33, 0.50, 0.75, 1.00, 1.50 and 2.00 liters. All these volumina are rather usual. For cans, the 0.33 liter size is most commonly used.

Ensuring Conformity to Import Standard

In case of intended export of products, it is always recommended to have checked the conformity of the product and the label to legal requirements by an institute in the Netherlands.

Especially for *food supplements and health foods*, this is strongly recommended. Concerning these products, a specific standard is still missing on an E.C. level as well as on a Dutch level. Concerning vitamin preparations only, a Dutch decree is in force (the *Warenwetbesluit Vrijstelling vitaminepreparaten*).

In general, product samples shipped via express mail or parcel post can be considered as 'samples of negligible value', as regulated by the International Convention to Facilitate the Importation of Commercial Samples and Advertising Material. These samples are exempt from import duties and taxes. In this connection, prior authorization is not required. It is advised to render these samples useless for sale, for instance by special marking.

Certification and Documentation Requirements

Shipments are only accepted if the required accompanying documents are present, generally in triplicate or more (original and copies). The *bills of loading* must mention the name of the party in the Netherlands to be informed. The original bills are destined for the consignee.

A commercial *invoice* must be present, in which *detailed* information must be supplied concerning the shipment (shipper, description of goods, manner of packing, number/markings of packages, tariff information, price/costs, payment conditions, origin). For consignments of meat a *health inspection certificate* is required, including a official *hormone declaration*. For products of animal origin such as meat meal, meat and bone meal and blood meal a *veterinary certificate* is required. Some primary foods like fresh fruit and potatoes need a *phytosanitary certificate*.

Other documents: generally not required are *packing lists*, *pro forma invoice*, *certificates of origin*, *certificates of analysis*. These, however, can be asked by the importer and can facilitate clearance.

A *US Shipper's export declaration* is required if the value of shipment exceeds USD 1.500.

F. Other Specific Standards

Other relevant specific Dutch standards are:

1. Pressure packaging (spray cans). *Warenwetbesluit drukverpakkingen*. Based on E.C. directives 75/324 and 94/1
2. Technical (strength) requirements for soft drink bottles. *Warenwetregeling sterkte-eisen frisdrankflessen*
3. Veterinary/health control for foods of animal origin. *Warenwetregeling Gezondheids-controles levensmiddelen van dierlijke oorsprong*. Based on several E.C. decisions and E.C. directives 97/78 and 92/118
4. Flavorings. *Warenwetbesluit aroma's* and *Warenwetregeling Stoffen in aroma's* (based on E.C. directive 88/388) and *Regeling geur- en smaakstoffen*
5. Irradiated foods. *Warenwetbesluit Doorstraalde waren*
6. Food manufacturing guidelines. *Warenwetbesluit bereiding en behandeling van levensmiddelen*
7. Food hygiene (including guidelines for a HACCP production system). *Warenwet-regeling Hygiene van levensmiddelen*. Based on E.C. directive 93/43
8. Frozen foods. *Warenwetregeling Diepgevroren levensmiddelen*. Based on E.C. directives 92/1 and 92/2
9. Vitamin- and mineral-enriched foods. *Warenwetbesluit Toevoeging microvoedings-stoffen aan levensmiddelen*. Notification of enriched products is mandatory.
10. Milk, milk products, cheese, butter. *Warenwetbesluit zuivel* and *Warenwetregeling Zuivelbereiding*. Based on E.C. regulations (1411/71, 1898/87) and several E.C. directives
11. Egg products. *Warenwetbesluit eiprodukten*. Derived from E.C. directives 89/437 and 91/684. Health requirements for import products: E.C. decision 97/38
12. Hen eggs. *EC-regulation 1907/90 betreffende handelsnormen voor eieren*
13. Edible Oils and Fats. *MVO Verordening 1975 Eetbare olien en vetten*.
14. Margarine and other spreadable fat products. *Warenwetbesluit smeerbare vetproducten* and *E.C. regulation 2991/94*.
15. Cocoa and Chocolate. *Verordening Akk Cacao en chocoladeproducten*. After 2 August 2003: *Warenwetbesluit Cacao en Chocolade*. Based on EC-legislation
16. Coffee. *Warenwetbesluit koffie en chichorei*
17. Tea. *Warenwetbesluit thee*
18. Soft drinks. *Warenwetbesluit frisdranken*
19. Fruit juices. *Verordening Vruchtesappen en aanverwante producten*. Based on EC-legislation
20. Spirits. *EC-regulation 1576/89 and 1014/90 betreffende gedistilleerde dranken*
21. Beer. *Bierverordening 1997*
22. Proteins (soy and wheat). *Warenwetbesluit eiwitproducten*

23. Preserved fruit products (including jams). *Warenwetbesluit verduurzaamde vruchten-producten*. Partly based on E.C. directive 88/593
24. Meat and meat products. *Warenwetbesluit Vlees, gehakt en vleesproducten* and *Warenwetregeling Gehakt vlees en vleesbereidingen* (based on E.C. directive 94/65)
25. Fishery products. *Warenwetbesluit Visserijproducten*
26. Spices and herbs. *Warenwetbesluit specerijen en kruiden*
27. Food packaging materials. *Verpakkingen- en gebruiksartikelenbesluit* and *Regeling verpakkingen en gebruiksartikelen*. Partly based on E.C. legislation. Supplies requirements concerning composition.
28. Mineral water and other types of packed water. *Warenwetbesluit verpakte waters*. Partly based on E.C. legislation.
29. Snacks, salads etc. *Kokswarenbesluit Warenwet* .
30. Flour and bread. *Warenwetbesluit meel en brood*.
31. Purity requirements for Sweeteners. *Warenwetregeling Zuiverheidseisen van zoetstoffen*. Based on E.C. directive 95/31
32. Purity requirements for food colors. *Warenwetregeling Zuiverheidseisen van kleurstoffen*. Based on E.C. directive 95/45
33. Purity requirements for food additives (sweeteners and colors not included). *Warenwetregeling Zuiverheidseisen van levensmiddelenadditieven met uitzondering van kleurstoffen en zoetstoffen*. Based on E.C. directive 96/77

G. Copyright and/or Trademark Laws

Copyright

The Netherlands and the U.S. are both members of the “Universal Copyright Convention.” As a consequence, the copyright to works of U.S. authors previously copyrighted in the US is also protected in the Netherlands.

Trade Marks

Trade mark registration in the Netherlands is based on Benelux legislation. On the basis of the relevant law, registration can be obtained for the 3 Benelux countries (Belgium, Netherlands and Luxembourg), not for the Netherlands only. Applications for trademark registration in the Benelux can be sent to Benelux Merkenbureau (Benelux Trademark Office), Bordewijklaan 15, 2591 XR The Hague (Den Haag), phone +31 70 349 11 11, fax +31 70 347 57 08 (Appendix 1). International trademark registrations, as regulated by the Madrid Agreement, are also effective in the Benelux countries.

H. Import Procedure

In Chapter E, a survey is supplied concerning the required import/export documents. In general, for these documents the English language is accepted. As a rule, registration by regulatory agencies is not required (exceptions: novel foods and enriched foods). Except when products are damaged, no specific problems are to be encountered which can hinder quick customs clearance. Goods can, however, only be cleared if the required shipping documents are available and relevant costs (customer duty, taxes) are paid. Clearance is carried out by the customs house. As a rule, food regulatory agencies/Food Inspection Services are not involved at this stage. In harbors, airports and major cities sufficient warehouse facilities are present for customs storage. In the Netherlands, retail organizations and supermarkets generally import through importers or wholesalers rather than importing directly. They have experienced that this enables quick customs clearance. Another advantage is that Dutch importers have nation-wide distribution.

APPENDIX 1: Major Regulatory Agencies***Ministry of Health, Welfare and Sports***

Directie Voeding en Gezondheidsbescherming

Director Dr Ir. R.J. Dortland	Parnassusplein 5	tel. +31-70 340 68 84
	P.O. Box 20350	fax. +31-70 340 51 77
	2500 EJ The Hague	

Keuringsdienst van Waren, Algemene Directie

(Food Inspection Services Central Office)

Parnassusplein 5	tel. +31-70 340 50 60
P.O. Box 16108	fax. +31-70 340 54 35
2500 BC The Hague	

College voor de Toelating van Bestrijdingsmiddelen

(Pesticides Admission Board)

Stadsbrink 5	tel. +31-317 47 18 10
P.O. Box 217	fax. +31-317 47 18 99
6700 AE Wageningen	

Benelux Merkenbureau

(Benelux Trademark Office)

Bordewijklaan 15	tel. +31-70 349 11 11
2591 XR 's-GRAVENHAGE	fax. +31-70 347 57 08

Information about the estimate net weight system (e-system):

NMI-Certin B.V.

Mr. R. Elving	Hugo de Grootplein 1	tel. +31-78 63 32 332
	3314 EG Dordrecht	fax. +31-78 63 32 309

Information, Consultancy:

TNO Nutrition and Food Research

Utrechtseweg 48	tel. +31-30 694 41 44
P.O. Box 360	fax. +31-30 695 72 24
3700 AJ Zeist	e-mail infofood@voeding.tno.nl

APPENDIX 2: Local Contacts***Local Food Inspection Services, Northern Area***

Keuringsdienst van Waren

Regionale Dienst Noord	Paterswoldeweg 1	tel. +31-50 588 6 000
	P.O. Box 465	fax. +31-50 588 6 100
	9700 AL Groningen	

Local Food Inspection Services, Eastern Area

Keuringsdienst van Waren

Regionale Dienst Oost	De Stoven 22	tel. +31-575 58 8 100
	7206 AX Zutphen	fax. +31-575 58 8 200

Local Food Inspection Services, Southern Area

Keuringsdienst van Waren

Regionale Dienst Zuid	Rijzertlaan 19	tel. +31-40 291 1 500
	P.O. Box 2280	fax. +31-40 291 1 600
	5202 CG 's-Hertogenbosch	

Local Food Inspection Services, North-western Area

Keuringsdienst van Waren

Regionale Dienst Noord-West	Hoogte Kadijk 401	tel. +31-20 524 4 600
	1018 BK Amsterdam	fax. +31-20 524 4 700

Local Food Inspection Services, South-western Area

Keuringsdienst van Waren

Regionale Dienst Zuid-West	Baan 74	tel. +31-78 611 2 100
	P.O. Box 23081	fax. +31-78 611 2 200
	3001 KB Rotterdam	

APPENDIX 3: Generic Name of Ingredients
(For ingredient declaration purposes)

Ingredient	Generic Name
1. any refined oil (<i>olive oil not included</i>)	olie plantaardige olie dierlijke olie
(<i>If the oil is hydrogenated it must be labeled as such</i>)	geharde olie
2. Any refined fat	vet plantaardig vet dierlijke vet
(<i>If the fat is hydrogenated it must be labeled as such</i>)	gehard vet
3. Mixtures of flour	meel (<i>followed by a list of relevant cereals in correct order</i>)
4. Starch, physically/enzymatically modified starch (<i>In the case the starch may contain gluten, the sort must be mentioned, for instance tarwezetmeel (wheat starch)</i>)	zetmeel
Chemically modified starch	gemodificeerd zetmeel
5. Any species of fish	vis
6. Poultry meat ingredients	pluimveevlees
7. Cheese ingredients	kaas
8. Herbs (<i>max. 2% in product</i>)	kruiden (<i>or:</i>) mengsel van kruiden
9. Spices not exceeding 2% of product	specerijen (<i>or:</i>) mengsel van specerijen
10. Gum preparation used in chewing gum	gombasis
11. Crumbs	paneermeel
12. All categories of saccharose	suiker
13. Dextrose anh. of monohydrate	dextrose (<i>or:</i>) glucose
14. All kinds of caseinates	caseïnaten
15. Crystallized fruit not exceeding 10% of the product	geconfijte vruchten
16. All kinds of syrup, made from starch	glucosestroop
17. Press, expeller or refined cocoa butter	cacaoboter
18. Any mixture of vegetable	groenten
19. Any type of wine (reg. EEC 822/87)	wijn

APPENDIX 4: Categories of Additives Which must Be Identified in a List of Ingredients

Ref: EC Directive 89/107

	Category	Translation (Dutch)
1	Acid	Voedingszuur
2	Acidity regulator	Zuurteregelaar ¹⁾
3	Anti-caking agent	Anti-klontermiddel
4	Anti-foaming agent	Anti-schuimmiddel
5	Anti-oxidant	Antioxydant
6	Bulking agent	Vulstof
7	Colour	Kleurstof
8	Emulsifier	Emulgator
9	Emulsifying salt	Smeltzout
10	Firming agent	Verstevigingsmiddel
11	Flavour enhancer	Smaakversterker
12	Flour treatment agent	Meelverbeteraar
13	Gelling agent	Geleermiddel
14	Glazing agent	Glansmiddel
15	Humectant	Bevochtigingsmiddel
16	Modified starch	Gemodificeerd zetmeel
17	Preservative	Conserveermiddel
18	Propellant gas and packaging gas	Drijfgas (verpakkingsgas)
19	Raising agent	Rijsmiddel
20	Stabilizer	Stabilisator ²⁾
21	Sweetener	Zoetstof
22	Thickener	Verdikkingmiddel
23	Sequestrant	Complexvormer ³⁾
24	Enzyme	Enzym ^{4,5)}

¹⁾ These can act as two-way acidity regulators²⁾ This category also comprises foam stabilizers³⁾ These substance include lubricants⁴⁾ Inclusion of these terms in this list is without prejudice to any future decision or mention thereof in the labelling of foodstuffs intended for the final user⁵⁾ Only those used as additives

APPENDIX 5: Survey of Additives

Name	Category	EC-registration number
curcumin	color	E 100
riboflavin	color	E 101
riboflavin-5'-phosphate	color	E 101
tartrazine	color	E 102
quinoline Yellow	color	E 104
sunset Yellow FCF	color	E 110
cochineal (carmine)	color	E 120
azorubine (carmoisine)	color	E 122
amaranth	color	E 123
ponceau 4R (cochineal red A)	color	E 124
erythrosine	color	E 127
red 2G	color	E 128
allura red AC	color	E 129
patent Blue V	color	E 131
indigotine (indigo carmine)	color	E 132
brilliant Blue FCF	color	E 133
chlorophylls and chlorophyllins	color	E 140
chlorophylls	color	E 140
chlorophyllins	color	E 140
copper complex of chlorophylls and chlorophyllins	color	E 141
copper complex of chlorophylls	color	E 141
copper complex of chlorophyllins	color	E 141
green S	color	E 142
plain caramel	color	E 150 a
caustic sulphite caramel	color	E 150 b
ammonia caramel	color	E 150 c
sulphite ammonia caramel	color	E 150 d
brilliant black BN (black BN)	color	E 151
vegetable carbon	color	E 153
brown FK	color	E 154
brown HT	color	E 155
carotenes	color	E 160 a

mixed carotenes	color	E 160 a
beta carotene	color	E 160 a
annatto (bixin, norbixin)	color	E 160 b
paprika extract, capsanthin, capsorubin	color	E 160 c
lycopene	color	E 160 d
beta-apo-8'-carotenal (C 30)	color	E 160 e
ethyl ester of beta-apo-8'-carotenic acid (C 30)	color	E 160 f
lutein	color	E 161 b
canthaxanthin	color	E 161 g
beetroot Red (betanin)	color	E 162
anthocyanins	color	E 163
calcium carbonate	color	E 170
titanium dioxide	color	E 171
iron oxides/hydroxides	color	E 172
aluminium	color	E 173
silver	color	E 174
gold	color	E 175
litholrubine BK	color	E 180
sorbic acid	preservative	E 200
potassium sorbate	preservative	E 202
calcium sorbate	preservative	E 203
benzoic acid	preservative	E 210
sodium benzoate	preservative	E 211
potassium benzoate	preservative	E 212
calcium benzoate	preservative	E 213
ethyl p-hydroxybenzoate	preservative	E 214
sodium ethyl p-hydroxybenzoate	preservative	E 215
propyl p-hydroxybenzoate	preservative	E 216
sodium propyl p-hydroxybenzoate	preservative	E 217
methyl p-hydroxybenzoate	preservative	E 218
sodium methyl p-hydroxybenzoate	preservative	E 219
sulphur dioxide	preservative	E 220
sodium sulphite	preservative	E 221
sodium hydrogen sulphite	preservative	E 222
sodium metabisulphite	preservative	E 223

potassium metabisulphite	preservative	E 224
calcium sulphite	preservative	E 226
calcium hydrogen sulphite	preservative	E 227
potassium hydrogen sulphite	preservative	E 228
biphenyl, diphenyl	preservative	E 230
orthophenyl phenol	preservative	E 231
sodium orthophenyl phenol	preservative	E 232
thiabendazole	preservative	E 233
nisin	preservative	E 234
natamycin	preservative	E 235
hexamethylene tetramine	preservative	E 239
dimethyl dicarbonate	preservative	E 242
potassium nitrite	preservative	E 249
sodium nitrite	preservative	E 250
sodium nitrate	preservative	E 251
potassium nitrate	preservative	E 252
acetic acid	acid/acidity regulator	E 260
potassium acetate	acidity regulator	E 261
sodium acetates	acidity regulator	E 262
sodium acetate	acidity regulator	E 262
sodium hydrogen acetate (sodium diacetate)	acidity regulator	E 262
calcium acetate	sequestrant/firming agent	E 263
lactic acid	acid	E 270
propionic acid	preservative	E 280
sodium propionate	preservative	E 281
calcium propionate	preservative	E 282
potassium propionate	preservative	E 283
boric acid	preservative	E 284
sodium tetraborate (borax)	preservative	E 285
carbon dioxide	acid/packaging gas	E 290
malic acid	acid	E 296
fumaric acid	acid	E 297
ascorbic acid	antioxidant	E 300
sodium ascorbate	antioxidant	E 301
calcium ascorbate	antioxidant	E 302

fatty acid esters of ascorbic acid	antioxidant	E 304
ascorbylpalmitate	antioxidant	E 304
ascorbylstearate	antioxidant	E 304
tocopherol-rich extract	antioxidant	E 306
alpha-tocopherol	antioxidant	E 307
gamma-tocopherol	antioxidant	E 308
delta-tocopherol	antioxidant	E 309
propyl gallate	antioxidant	E 310
octyl gallate	antioxidant	E 311
dodecyl gallate	antioxidant	E 312
erythorbic acid	antioxidant	E 315
sodium erythorbate	antioxidant	E 316
butylated hydroxyanisole (BHA)	antioxidant	E 320
butylated hydroxytoluene (BHT)	antioxidant	E 321
lecithins	emulsifier	E 322
sodium lactate	humectant/acidity regulator	E 325
potassium lactate	acidity regulator	E 326
calcium lactate	firming agent	E 327
citric acid	acid/acidity regulator/sequestrant	E 330
sodium citrates	sequestrant/emulsifying salt	E 331
monosodiumcitrate	sequestrant/emulsifying salt	E 331
disodium citrate	sequestrant/emulsifying salt	E 331
trisodium citrate	sequestrant/emulsifying salt	E 331
potassium citrates	sequestrant/emulsifying salt	E 332
monopotassium citrate	sequestrant/emulsifying salt	E 332
tripotassium citrate	sequestrant/emulsifying salt	E 332
calcium citrates	firming agent/emulsifying salt/	E 333
monocalcium citrate	firming agent/emulsifying salt	E 333
dicalcium citrate	firming agent/emulsifying salt	E 333
tricalcium citrate	firming agent/emulsifying salt	E 333
tartaric acid (L(+))	acid/sequestrant	E 334
sodium tartrates	sequestrant/emulsifying salt	E 335
monosodium tartrate	sequestrant/emulsifying salt	E 335
disodium tartrate	sequestrant/emulsifying salt	E 335

potassium tartrates	acidity regulator/raising agent/emulsifying salt	E 336
monopotassium tartrate	acidity regulator/raising agent/emulsifying salt	E 336
dipotassium tartrate	acidity regulator/emulsifying salt	E 336
sodium potassium tartrate	acidity	E 337
phosphoric acid	acid/sequestrant	E 338
sodium phosphates	stabilizer	E 339
monosodium phosphate	stabilizer	E 339
disodium phosphate	stabilizer	E 339
trisodium phosphate	stabilizer/emulsifying salt/anti-caking agent	E 339
potassium phosphates	stabilizer/emulsifying salt	E 340
monopotassium phosphate	stabilizer/emulsifying salt	E 340
dipotassium phosphate	stabilizer/emulsifying salt	E 340
tripotassium phosphate	stabilizer/emulsifying salt	E 340
calcium phosphates	stabilizer/firming agent /emulsifying salt/ sequestrant/anti-caking agent	E 341
monocalcium phosphate	stabilizer/emulsifying salt/firming agent/anti-caking agent/sequestrant	E 341
dicalcium phosphate	stabilizer/emulsifying salt	E 341
tricalcium phosphate	stabilizer/anticaking agent	E 341
sodium malates	acidity regulator	E 350
sodium malate	acidity regulator	E 350
sodium hydrogen malate	acidity regulator	E 350
potassium malate	acidity regulator	E 351
calcium malates	acidity regulator/firming agent	E 352
calcium malate	acidity regulator/firming agent	E 352
calcium hydrogen malate	acidity regulator/firming agent	E 352
metatartaric acid	sequestrant	E 353
calcium tartrate	acidity regulator/sequestrant	E 354
adipic acid	acid	E 355
sodium adipate	acidity regulator	E 356
potassium adipate	acidity regulator	E 357
succinic acid	acid	E 363

triammonium citrate	acidity regulator/emulsifying salt	E 380
calcium disodium ethylene diamine tetra-acetate (calcium disodium EDTA)	sequestrant	E 385
alginic acid	thickener/stabilizer	E 400
sodium alginate	thickener/stabilizer	E 401
potassium alginate	thickener/stabilizer	E 402
ammonium alginate	thickener/stabilizer	E 403
calcium alginate	thickener/stabilizer	E 404
propane-1,2-diol alginate	thickener/stabilizer	E 405
agar	thickener/gelling agent	E 406
carrageenan	thickener/gelling agent	E 407
processed echeuma seaweed (PES)	thickener/gelling agent	E 407 a
locust bean gum	thickener/gelling agent	E 410
guar gum	thickener/bulking agent	E 412
tragacanth	thickener/stabilizer/bulking agent	E 413
acacia gum (gum arabic)	thickener/glazing agent/glazing agent/bulking agent	E 414
xanthan gum	thickener/stabilizer	E 415
karaya gum	thickener/stabilizer	E 416
tara gum	thickener/stabilizer	E 417
gellan gum	thickener/stabilizer	E 418
sorbitol	sweetener/humectant	E 420
sorbitol syrup	sweetener/humectant	E 420
mannitol	sweetener/humectant	E 421
glycerol	humectant	E 422
konjac	thickener/stabilizer	E 425
konjac gum	thickener/stabilizer	E 425
konjac glucomannane	thickener/stabilizer	E 425
polyoxyethylene-40-stearate	emulsifier	E 431
polyoxyethylene sorbitan monolaurate (polysorbate 20)	emulsifier/stabilizer	E 432
polyoxyethylene sorbitan monooleate (polysorbate 80)	emulsifier/stabilizer	E 433
polyoxyethylene sorbitan monopalmitate (polysorbate 40)	emulsifier/stabilizer	E 434
polyoxyethylene sorbitan monostearate (polysorbate 60)	emulsifier/stabilizer	E 435

polyoxyethylene sorbitan tristearate (polysorbate 65)	emulsifier/stabilizer	E 436
pectins	gelling agent	E 440
pectin	gelling agent	E 440
amidated pectin	gelling agent	E 440
ammonium phosphatides	emulsifier	E 442
sucrose acetate isobutyrate	stabilizer	E 444
glycerol, esters of wood rosins	stabilizer	E 445
diphosphates	stabilizer/raising agent/ sequestrant/ emulsifying salt	E 450
disodium diphosphate	stabilizer/raising agent/ sequestrant/emulsifying salt	E 450
trisodium diphosphate	stabilizer/raising agent/ sequestrant/emulsifying salt	E 450
tetrasodium diphosphate	stabilizer/sequestrant/ emulsifying salt	E 450
dipotassium diphosphate	stabilizer/emulsifying salt	E 450
tetrapotassium diphosphate	stabilizer/emulsifying salt	E 450
dicalcium diphosphate	stabilizer/emulsifying salt	E 450
calcium dihydrogen	stabilizer/emulsifying salt	E 450
triphosphates	stabilizer/emulsifying salt	E 451
pentasodium triphosphate	stabilizer/emulsifying salt	E 451
pentapotassium triphosphate	stabilizer/emulsifying salt	E 451
polyphosphates	stabilizer/emulsifying salt	E 452
sodium polyphosphate	stabilizer/emulsifying salt	E 452
potassium polyphosphate	stabilizer/emulsifying salt	E 452
sodium calcium polyphosphate	stabilizer/emulsifying salt	E 452
calcium polyphosphate	stabilizer/emulsifying salt	E 452
beta-cyclodextrine	stabilizer	E 459
cellulose	thickener/anti-caking agent/bulking agent	E 460
microcrystalline cellulose	thickener/anti-caking agent/bulking agent	E 460
powdered cellulose	thickener/anti-caking agent/bulking agent	E 460
methylcellulose	thickener/bulking agent	E 461
hydroxypropyl cellulose	thickener/stabilizer	E 463

hydroxypropyl methyl cellulose	thickener/stabilizer	E 464
ethyl methyl cellulose	thickener/stabilizer	E 465
carboxy methyl cellulose	thickener/bulking agent	E 466
crosslinked sodium carboxy methyl cellulose	thickener	E 468
enzymatically hydrolysed carboxy methyl cellulose	thickener	E 469
sodium, potassium and calcium salts of fatty acids	emulsifier	E 470 a
magnesium salts of fatty acids	emulsifier	E 470 b
mono- and diglycerides of fatty acids	emulsifier	E 471
acetic acid esters of mono- and diglycerides of fatty acids	emulsifier	E 472 a
lactic acid esters of mono- and diglycerides of fatty acids	emulsifier	E 472 b
citric acid esters of mono- and diglycerides of fatty acids	emulsifier	E 472 c
tartaric acid esters of mono- and diglycerides of fatty acids	emulsifier	E 472 d
mono- and diacetyl tartaric acid esters of mono- and diglycerides of fatty acids	emulsifier	E 472 e
mixed acetic and tartaric acid esters of mono- and diglycerides of fatty acids	emulsifier	E 472 f
sucrose esters of fatty acids	emulsifier	E 473
sucroglycerides	emulsifier	E 474
polyglycerol esters of fatty acids	emulsifier	E 475
polyglycerol polyricinoleate		E 476
propane-1,2-diol esters of fatty acids	emulsifier	E 477
thermally oxidized soybean oil interacted with mono- and diglycerides of fatty acids	emulsifier	E 479 b
sodium stearoyl-2-lactylate	emulsifier	E 481
calcium stearoyl-2-lactylate	emulsifier	E 482
stearyl tartrate	emulsifier	E 483
sorbitan monostearate	emulsifier	E 491
sorbitan tristearate	emulsifier	E 492
sorbitan monolaurate	emulsifier	E 493
sorbitan monooleate	emulsifier	E 494
sorbitan monopalmitate	emulsifier	E 495
sodium carbonates	acidity regulator	E 500
sodium carbonate	acidity regulator	E 500

sodium hydrogen carbonate	acidity regulator/raising agent	E 500
sodium sesquicarbonate	acidity regulator	E 500
potassium carbonates	acidity regulator	E 501
potassium carbonate	acidity regulator	E 501
potassium hydrogen carbonate	acidity regulator	E 501
ammonium carbonates	acidity regulator	E 503
ammonium carbonate	acidity regulator/raising agent	E 503
ammonium hydrogen carbonate	acidity regulator/raising agent	E 503
magnesium carbonates	acidity regulator/anti-caking agent	E 504
magnesium carbonate	acidity regulator/anti-caking agent	E 504
magnesium hydroxide carbonate	acidity regulator	E 504
hydrochloric acid	acid	E 507
potassium chloride	stabilizer	E 508
calcium chloride	anti-caking agent/sequestrant/firming agent	E 509
magnesium chloride	firming agent	E 511
stannous chloride	antioxidant	E 512
sulphuric acid	acid	E 513
sodium sulphates	stabilizer	E 514
sodium sulphate	stabilizer	E 514
sodium hydrogen sulphate	stabilizer	E 514
potassium sulphates	stabilizer	E 515
potassium sulphate	stabilizer	E 515
potassium hydrogen sulphate	stabilizer	E 515
calcium sulphate	firming agent/sequestrant	E 516
ammonium sulphate	stabilizer	E 517
aluminium sulphate	stabilizer	E 520
aluminium sodium sulphate	stabilizer	E 521
aluminium potassium sulphate	stabilizer	E 522
aluminium ammonium sulphate	stabilizer	E 523
sodium hydroxide	acidity regulator	E 524
potassium hydroxide	acidity regulator	E 525
calciumhydroxide	acidity regulator/firming agent	E 526
ammonium hydroxide	acidity regulator	E 527

magnesium hydroxide	acidity regulator/stabilizer	E 528
calcium oxide	acidity regulator	E 529
magnesium oxide	acidity regulator/anti-caking agent	E 530
sodium ferrocyanide	anti-caking agent	E 535
potassium ferrocyanide	anti-caking agent	E 536
calcium ferrocyanide	anti-caking agent	E 538
sodium aluminium phosphate,	raising agent/acidity regulator	E 541
silicon dioxide	anti-caking agent	E 551
calcium silicate	anti-caking agent	E 552
magnesium silicate	anti-caking agent	E 553 a
magnesium trisilicate	anti-caking agent	E 553 a
talc	anti-caking agent	E 553 b
sodium aluminium silicate	anti-caking agent	E 554
potassium aluminium silicate	anti-caking agent	E 555
calcium aluminium silicate	anti-caking agent	E 556
bentonite	anti-caking agent	E 558
aluminium silicate (kaolin)	anti-caking agent	E 559
fatty acids	anti-caking agent	E 570
gluconic acid	sequestrant	E 574
glucono-delta-lactone	sequestrant	E 575
sodium gluconate	sequestrant	E 576
potassium gluconate	sequestrant	E 577
calcium gluconate	sequestrant/acidity regulator/firming agent	E 578
ferrous gluconate	sequestrant	E 579
ferrous lactate	stabilizer	E 585
glutamic acid	flavour enhancer	E 620
monosodium glutamate (MSG)	flavour enhancer	E 621
monopotassium glutamate	flavour enhancer	E 622
calcium diglutamate	flavour enhancer	E 623
mono ammonium glutamate	flavour enhancer	E 624
magnesium diglutamate	flavour enhancer	E 625
guanylic acid	flavour enhancer	E 626
disodium guanylate	flavour enhancer	E 627
dipotassium guanylate	flavour enhancer	E 628

calcium guanylate	flavour enhancer	E 629
inosinic acid	flavour enhancer	E 630
disodium inosinate	flavour enhancer	E 631
dipotassium inosinate	flavour enhancer	E 632
calcium inosinate	flavour enhancer	E 633
calcium-5'-ribonucleotides	flavour enhancer	E 634
disodium-5'-ribonucleotides	flavour enhancer	E 635
glycine and its sodiumsalt	stabilizer/flavour enhancer	E 640
Zinc acetate	For chewing gum only	E 650
dimethyl polysiloxane	anti-foaming agent	E 900
bees wax, white and yellow	glazing agent	E 901
candelilla wax	glazing agent	E 902
carnauba wax	glazing agent	E 903
shellac	glazing agent	E 904
montan acid esters	glazing agent	E 912
oxidized polyethylene wax	glazing agent	E 914
carbamide	stabilizer	E 927 b
argon	propellant gas	E 938
helium	propellant gas	E 939
nitrogen	propellant gas/packaging gas	E 941
nitrous oxide	propellant gas	E 942
butane	propellant gas	E 943a
iso-butane	propellant gas	E 943b
propane	propellant gas	E 944
oxygen	propellant gas	E 948
hydrogen	propellant gas	E 949
acesulphame-K	sweetener	E 950
aspartame	sweetener	E 951
cyclamate (incl. sodium/potassium salts)	sweetener	E 952
isomalt	sweetener	E 953
saccharin (incl. sodium, potassium and calcium salts)	sweetener	E 954
thaumatin	sweetener	E 957
neohesperidine-DC	sweetener	E 959
maltitol	sweetener/humectant	E 965

maltitol syrup	sweetener/humectant	E 965
lactitol	sweetener/humectant	E 966
xylitol	sweetener/humectant	E 967
quillaia extract	sequestrant	E 999
invertase	enzyme	E 1103
lysozyme	preservative	E 1105
polydextrose	bulking agent	E 1200
polyvinylpyrrolidone	stabilizer	E 1201
polyvinylpolypyrrolidone	stabilizer	E 1202
oxidized starch	emulsifier	E 1404
mono starch phosphate	emulsifier	E 1410
distarch phosphate	emulsifier	E 1412
phosphated distarch phosphate	emulsifier	E 1413
acetylated distarch phosphate	emulsifier	E 1414
acetylated starch	emulsifier	E 1420
acetylated distarch adipate	emulsifier	E 1422
hydroxy propyl starch	emulsifier	E 1440
hydroxy propyl distarch phosphate	emulsifier	E 1442
starch sodium octenyl succinate	emulsifier	E 1450
acetylated oxidised starch	emulsifier	E 1451
triethyl citrate	sequestrant	E 1505
glyceryl triacetate (triacetin)	solvent/humectant	E 1518
propylene glycol	solvent	E 1520

Remark:

The category flour treatment agents are, as yet, not specified in the additives legislation.

In the Netherlands, only L (+) cysteine and/or L (+) cysteine hydrochloride may be used as flour treatment agents.